STATE OF MINNESOTA

DEPARTMENT: Attorney General - MPCA

Office Memorandum

PRIVILEGED

TO : MIKE CONVERY
Environmental Health Division
MDH

DATE: June 4, 1980

FROM : STEVE SHARMAN
Special Assistant
Attorney General

PHONE:

SUBJECT: State of Minnesota, et al., v. Reilly Tar & Chemical Corporation: Details Needed on St. Louis Park Water Supply Situation

The memo you and Pauline Bouchard prepared on April 3 proposed interim measures which could be sought from Reilly Tar. Your memo was very helpful and I am now incorporating your suggestion into legal pleadings. I need to include in these pleadings a short, detailed statement of the history of St. Louis Park municipal well closings and treatment and the current thinking on the magnitude and movement of the coal tar contamination.

Could you provide me the information listed below by the end of next week (June 13).

1. A map showing the location and numbers of the St. Louis Park municipal wells.

2. Details on well closings related to the coal tar contamination:

a. Date each well was closed;
b. Reason for closing each well (i.e., data and standards on which decision to close was based);
c. Date each well was put back into service;
d. Reason for putting well back into service.

3. Details on treatment of contaminated St. Louis Park well water, including current treatment:

a. Dates well water treated;
b. Kind of treatment;
c. Results of treatment on water quality data;
d. Impact of treatment on water supply situation;
e. Plans for further treatment.

4. Quick summary of the magnitude and movement of the coal tar contamination. While I appreciate that there are many geological, hydrological, and chemical complexities in the St. Louis Park situation, I would like to have in our pleading a brief description of the current understanding of the areal and vertical spread of contaminants originating from the Reilly Tar site, and the best guess as to movement of the contaminant.

I have enclosed a paragraph (#53) from a pleading submitted by the State of Michigan in its lawsuit against Hooker Chemical for ground and surface water contamination at Hooker's Montague, Michigan, facility. The ideas of "zone of contamination" and "volume of contaminated ground water" used by Michigan are easy for the lay person to grasp and might be useful in our pleading. I suggest the Michigan case only as a similar pleading I have encountered, not as a model that must be followed. I do not think you should undertake extensive calculations if that is necessary to parallel the Michigan pleading. Other helpful tools for conveying a picture of the scope of the St. Louis Park situation might be street maps to show areal spread or stratigraphic charts to show vertical spread. Please bear in mind that I need now only a general summary and that details can be developed in subsequent affidavits, reports, exhibits and testimony.

cc: David Giese - MDH
Pauline Bouchard - MDH
Rick Ferguson - MPCA
Marc Hult - U.S. Geological Survey

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53. From available hydrogeologic data, it is also possible to calculate reliably and with accuracy the extent of the area which is underlain by contaminated ground water. The shape of this "zone of contamination" is determined by the location of the waste disposal areas and the local ground-water flow patterns which are defined by the relative depth of the water table in the area. The extent of contamination can be verified by examining the water quality testing results from 1952 with results obtained in the same area in 1977. The estimated area of ground-water contamination, as delineated on the basis of 1977 data, encompasses approximately 364 acres. This contaminated zone also extends for an as yet unknown distance under White Lake. Considering only the known zone of contamination underlying the land surface, the aquifer attains a thickness of approximately 54 feet. Given an aquifer porosity of 20% and a thickness of 54 feet, the volume of contaminated ground water underlying the Hooker site and environs (exclusive of the zone of contamination underlying White Lake), is approximately 2 billion gallons.

54. Lake wells (wells drilled in White Lake), residential wells adjoining Hooker property, and wells on the Hooker plant site contain concentrations of contaminants in the range of tens thousands of parts per billion total chlorinated hydrocarbons. Wells drilled along the [illegible] shore have varying concentrations of total chlorinated hydrocarbons ranging to over 750,000 parts per billion. In the case of some individual constituents of the total chlorinated hydrocarbons, there are potential adverse health and ecological impacts associated with concentrat in the low tens to hundreds of parts per billion.